

FIG. 1  
(PRIOR ART)

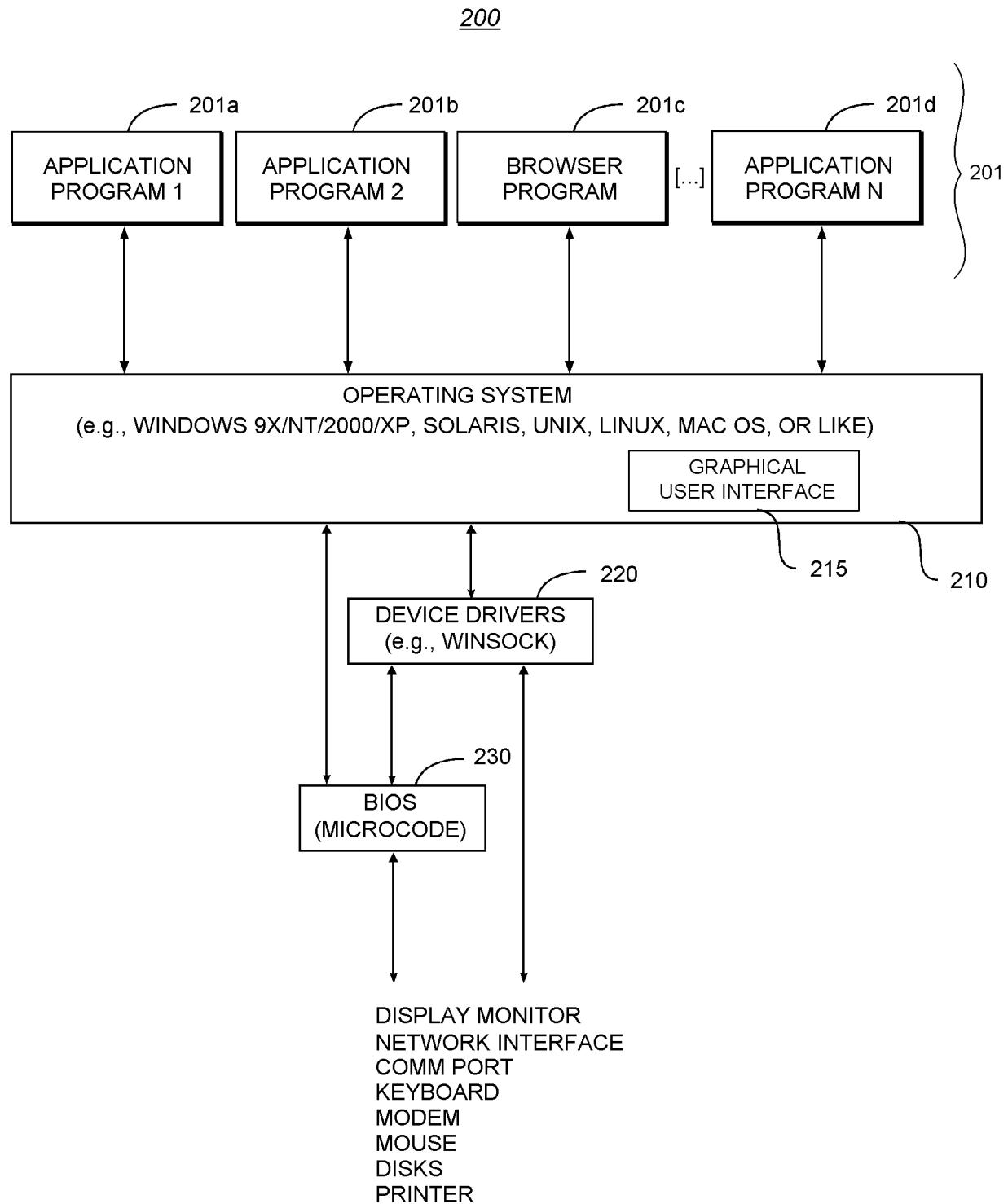


FIG. 2

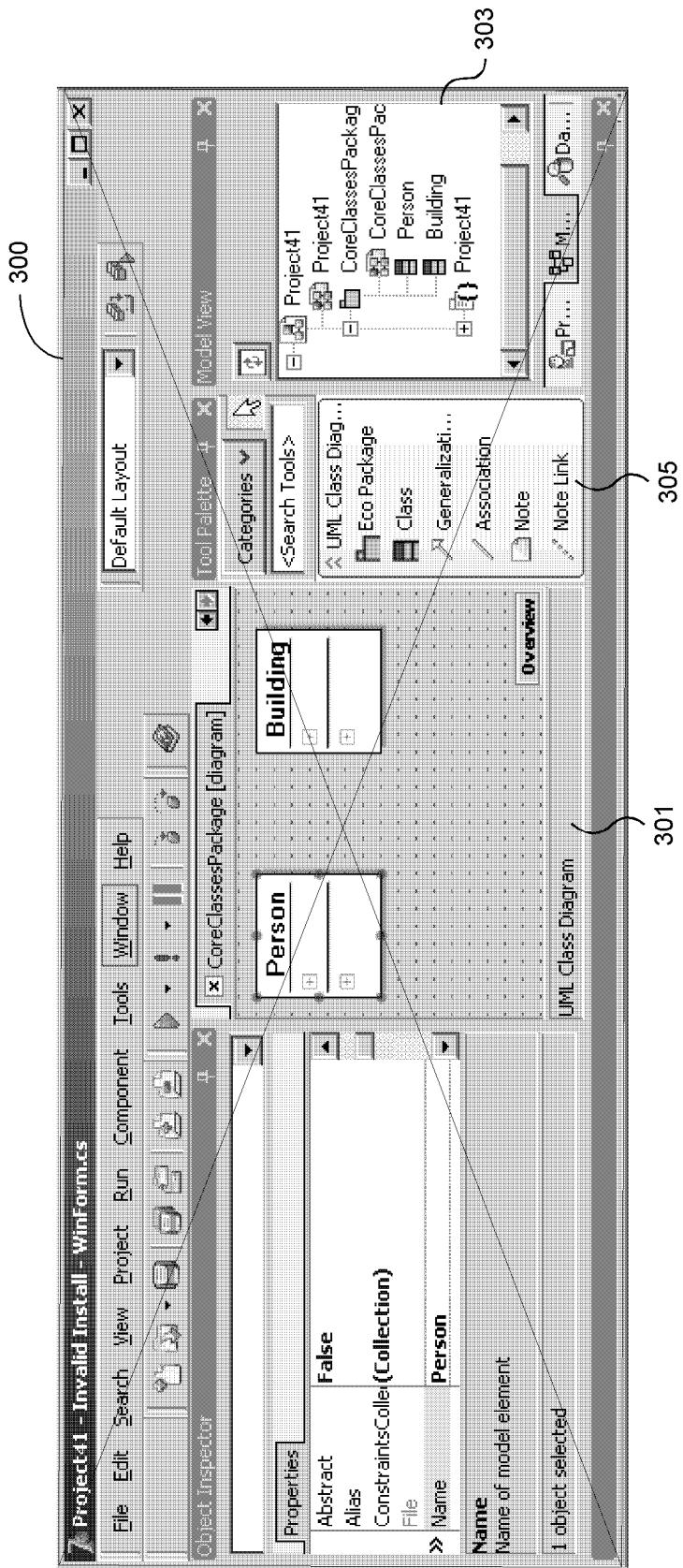


FIG. 3A

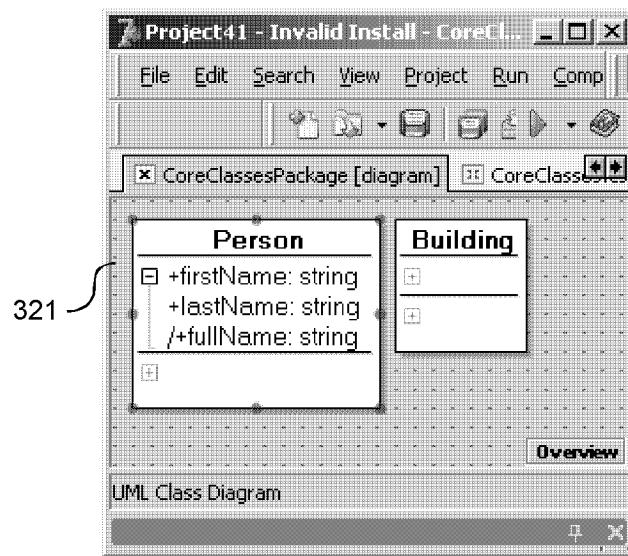
Project41 - Invalid Install - CoreClasses.cs

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>Welcome Page EcoWinForm.cs WinForm.cs CoreClassesPackage [diagram] CoreClasses.cs

```
10
11  namespace Project41
12  {
13      [UmlElement("Package")]
14      [UmlMetaAttribute("ownedElement", typeof(Person))]
15      [UmlMetaAttribute("ownedElement", typeof(Building))]
16      public abstract class CoreClassesPackage
17      {
18      }
19      [UmlElement]
20      public class Person : object, ILoopBack
21      {
22          [EcoAutoGenerated]
23          public class PersonListAdapter : ObjectListAdapter, IPersonList ...
24
25          Autogenerated ECO code
26
27          [EcoAutoMaintained]
28          public Person(IEcoServiceProvider serviceProvider) ...
29
30      }
31      [UmlElement]
32      public class Building : object, ILoopBack
33      {
34          [EcoAutoGenerated]
35          public class BuildingListAdapter : ObjectListAdapter, IBuildingList ...
36
37          Autogenerated ECO code
38
39          [EcoAutoMaintained]
40          public Building(IEcoServiceProvider serviceProvider) ...
41
42      }
43      [UmlCollection(typeof(Person))] [EcoAutoGenerated]
44      public interface IPersonList ...
45
46      [UmlCollection(typeof(Building))] [EcoAutoGenerated]
47      public interface IBuildingList ...
48
49  }
```

FIG. 3B



*FIG. 3C*

Project41 - Invalid Install - CoreClasses.cs

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>Welcome Page EcoWinForm.cs WinForm.cs CoreClassesPackage [diagram] CoreClasses.cs

```
18     }
19     [UmlElement]
20     public class Person : object, ILoopBack {
21
22         [EcoAutoGenerated]
23         public class PersonListAdapter : ObjectListAdapter, IPersonList ...
24
25         Autogenerated ECO code
26
27         [EcoAutoMaintained]
28         public Person(IEcoServiceProvider serviceProvider) ...
29         [UmlElement(Index=(Person.PersonFirstMember + 0))]
30         [EcoAutoMaintained]
31         public string firstName ...
32         [UmlElement(Index=(Person.PersonFirstMember + 1))]
33         [EcoAutoMaintained]
34         public string lastName ...
35         [UmlElement(Index=(Person.PersonFirstMember + 2))]
36         [EcoAutoMaintained]
37         [UmlTaggedValue("derived", "true")]
38         [UmlTaggedValue("Eco.DerivationOCL", "firstName + ' ' + lastName")]
39         public string fullName ...
40
41     }
42     [UmlElement]
```

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186: 1 Insert Modified Code

FIG. 3D

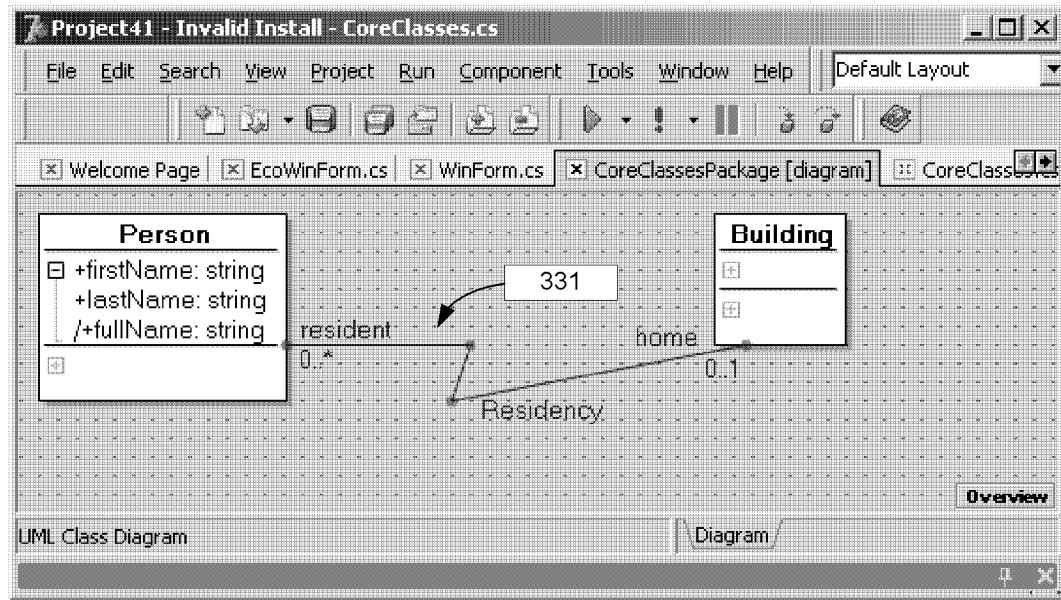


FIG. 3E

Project41 - Invalid Install - CoreClasses.cs

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Welcome Page EcoWinForm.cs WinForm.cs CoreClassesPackage [diagram] CoreClasses.cs

```

12  {
13      [UmlElement("Package")]
14      [UmlMetaAttribute("ownedElement", typeof(Person))]
15      [UmlMetaAttribute("ownedElement", typeof(Building))]
16  public abstract class CoreClassesPackage
17  {
18      [UmlElement("Association")]
19  public class Residency {
20  }
21 }
22 [UmlElement]
23  public class Person : object, ILoopBack {
24      [EcoAutoGenerated]
25  public class PersonListAdapter : ObjectListAdapter, IPersonList ...
26  Autogenerated ECO code
27  [EcoAutoMaintained]
28  public Person(IEcoServiceProvider serviceProvider) ...
29  [UmlElement(Index=(Person.PersonFirstMember + 0))]
30  [EcoAutoMaintained]
31  public string firstName ...
32  [UmlElement(Index=(Person.PersonFirstMember + 1))]
33  [EcoAutoMaintained]
34  public string lastName ...
35  [UmlElement(Index=(Person.PersonFirstMember + 2))]
36  [EcoAutoMaintained]
37  [UmlTaggedValue("derived", "true")]
38  [UmlTaggedValue("Eco.DerivationOCL", "firstName + ' ' + lastName")]
39  public string fullName ...
40  [UmlElement("AssociationEnd", Index=(Person.PersonFirstMember + 3))]
41  [EcoAutoMaintained]
42  [UmlMetaAttribute("association", typeof(CoreClassesPackage.Residency), Index=1)]
43  [UmlMetaAttribute("multiplicity", "0..1")]
44  public Building home ...
45 }
46 [UmlElement]
47  public class Building : object, ILoopBack {
48      [EcoAutoGenerated]
49  public class BuildingListAdapter : ObjectListAdapter, IBuildingList ...
50  Autogenerated ECO code
51  [EcoAutoMaintained]
52  public Building(IEcoServiceProvider serviceProvider) ...
53  [UmlElement("AssociationEnd", Index=(Building.BuildingFirstMember + 0))]
54  [EcoAutoMaintained]
55  [UmlMetaAttribute("association", typeof(CoreClassesPackage.Residency), Index=0)]
56  [UmlMetaAttribute("multiplicity", "0..*")]
57  public IPersonList resident {
58      get {
59          // If you add user code here, please remove the [EcoAutoMaintained] attribute
60          return new Project41.Person.PersonListAdapter(this._resident);
61      }
62  }
63 }
64

```

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319: 1 Insert Modified Code

FIG. 3F

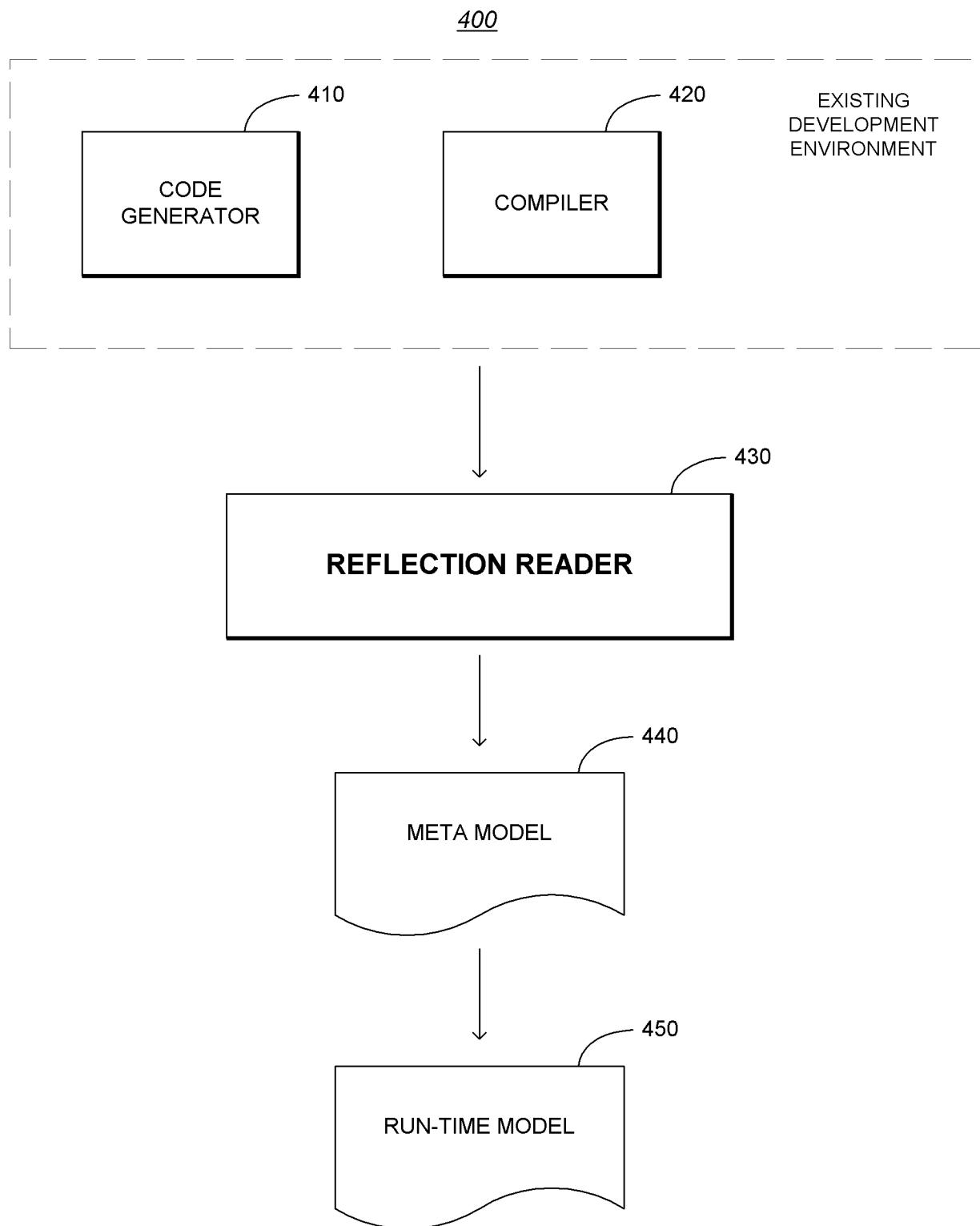


FIG. 4

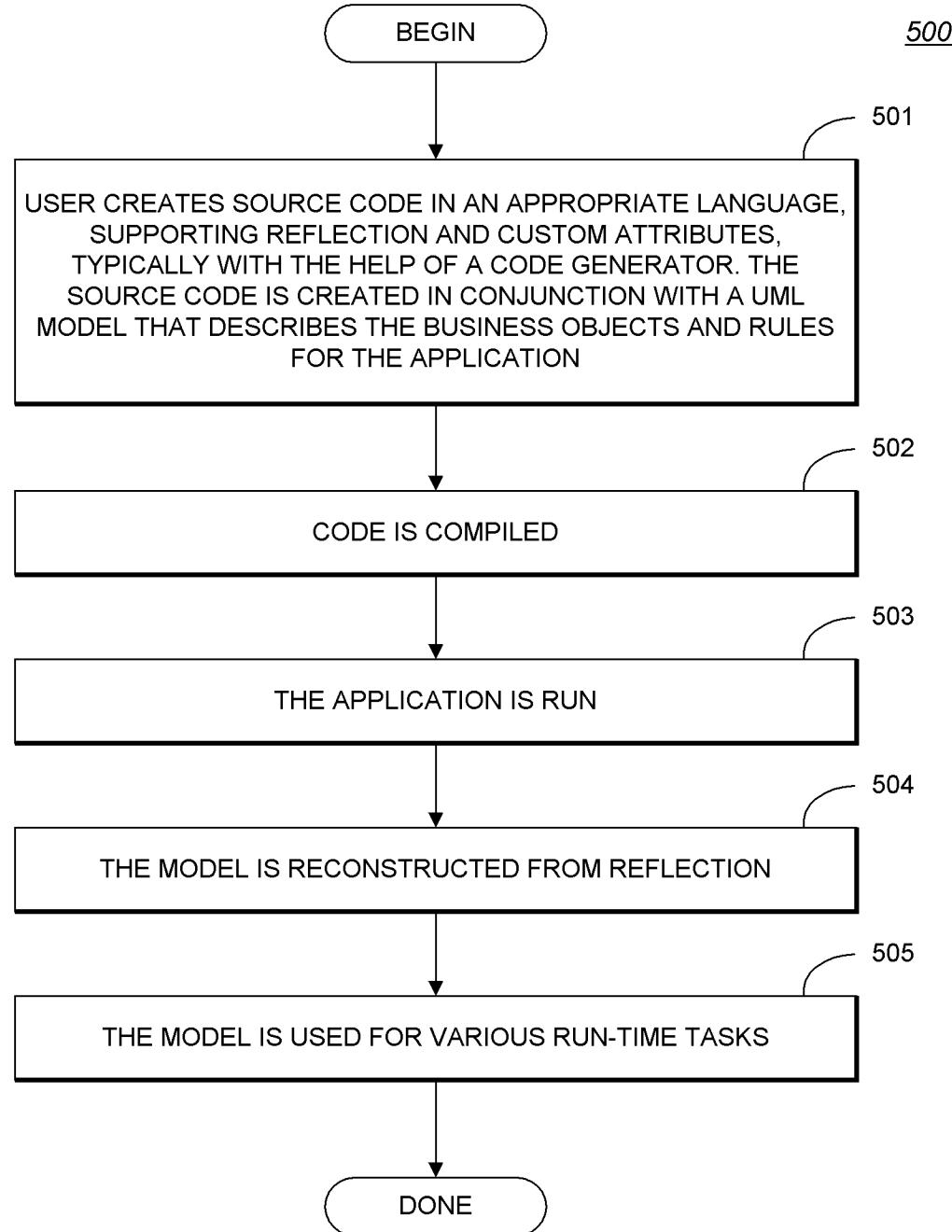


FIG. 5A

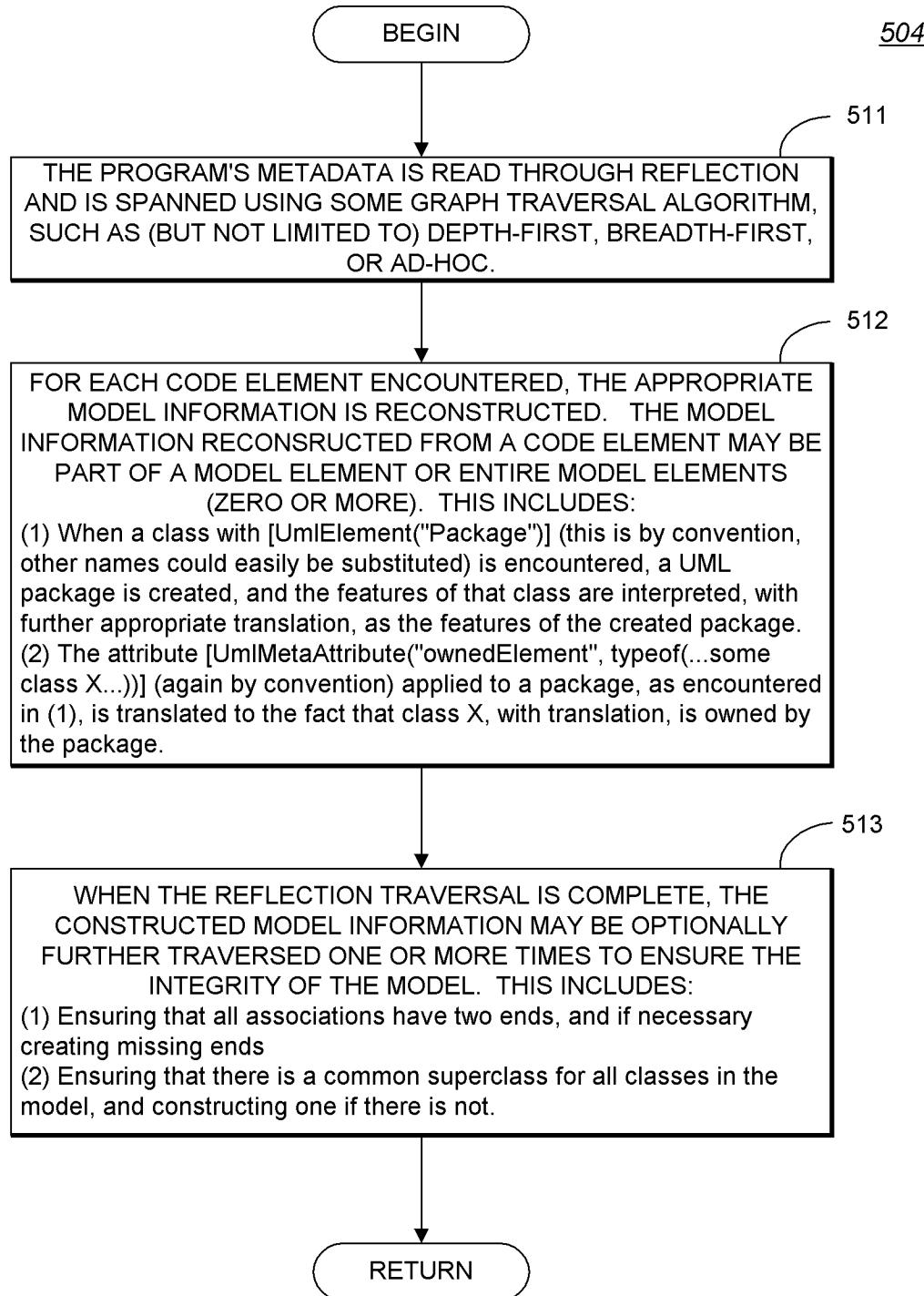


FIG. 5B

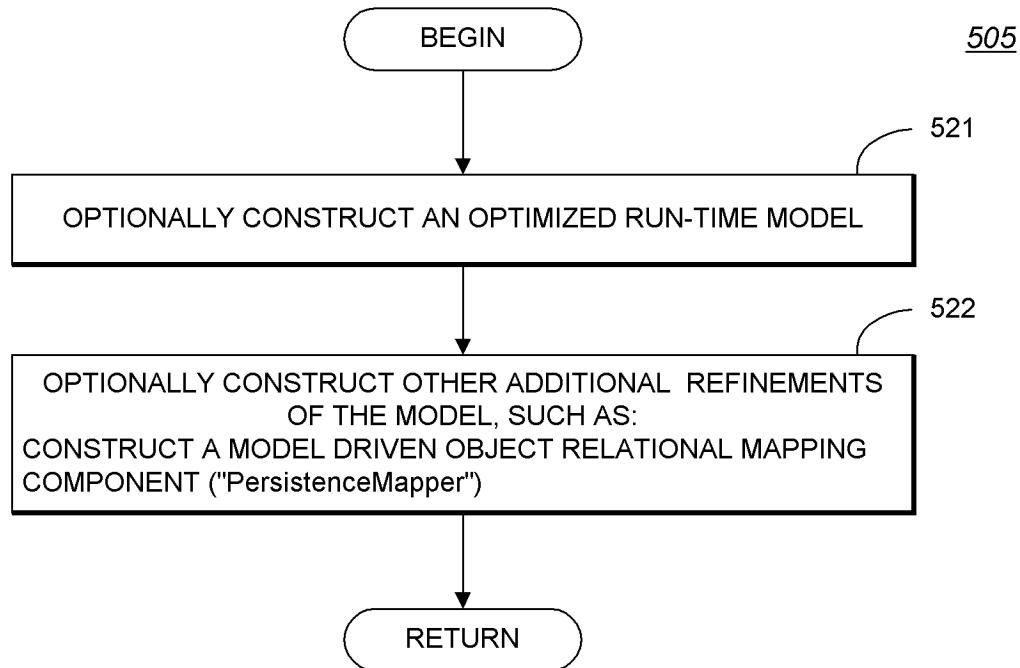


FIG. 5C